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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/743,616	12/22/2003	Jeff Scott Eder	AR - 61	8217

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3692	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _22 December 2003_.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _64-96_ is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _64-96_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

This Office Action is responsive to Applicant's amendment and request for

reconsideration of application 10/743,616 filed on June 7, 2007.

The amendment contains amended claims: 64-65, 68, 73, 75-76, 79, 84, 86-87,

90-91 and 95.

The amendment contains previously presented claims: 66-67, 69-72, 74, 77-78,

80-83, 85, 88-89, 92-94 and 96.

Claims 1-63 have been previously canceled.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly
claiming the subject matter which the applicant regards as his invention.

Claims 65 and 76 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention. It is not clear from the claim language how the

relative strength of the enterprise values are a used in determining the discount rate to

apply to the real options. It is claimed that the discount rate is a function of the relative

strength of one or more enterprise elements of value, but it is not clear specifically how

the elements make up and/or contribute to the overall determination of the discount

rate.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 64, 66-69, 71-73, 75, 77-80, 82-84, 86-91 and 93-95 are rejected under

35 U.S.C. 102(b) as being anticipated by "How to sort out the premium drivers of post-

deal value" by Daniel W. Bielinski (further referred to as Bielinski).

Regarding claims 64, 75 and 86-87, Bielinski discloses an enterprise

management method, program storage device with instructions and apparatus (pages

1-5), comprising:

Preparing transaction data related to a commercial enterprise for use in

processing, developing a computational model of enterprise market value by element of

value and segment of value by completing a series of multivariate analyses that utilize

at least a portion of said data (pages 1-5), and

Completing activities selected from the group consisting of: determining an

element of value contribution, quantifying an element of value impact on enterprise

financial performance, completing an analysis of enterprise financial performance,

optimizing one or more aspects of enterprise financial performance, simulating an

enterprise financial performance, optimizing a future enterprise market value,

quantifying a future enterprise market value, creating a management report, valuing an

enterprise market sentiment, calculating a real option discount rate, valuing a real

option, valuing a share of enterprise stock, determining a target share price and

combinations thereof where a segment of value further comprises a current operation

and a segment of value selected from the group consisting of market sentiment, real

option, derivative, excess financial asset and combinations thereof (pages 1-5).

Regarding claims 66, 77 and 88, Bielinski discloses an enterprise management

method, program storage device with instructions and apparatus where the elements of

value are selected from the group consisting of alliances, brands, channels, customer

relationships, employees, employee relationships, intellectual capital, intellectual

property, partnerships, processes, production equipment, vendors, vendor relationships

and combinations thereof (pages 2-4).

Regarding claims 67, 78 and 89, Bielinski discloses an enterprise management

method, program storage device with instructions and apparatus where preparing data

for use in processing further comprises integrating data from a plurality of enterprise

related systems in accordance with a common schema (pages 1-5).

Regarding claims 68, 79 and 90, Bielinski discloses an enterprise management

method, program storage device with instructions and apparatus where optimizing one

or more aspects of enterprise financial performance further comprises identifying value

driver changes that will optimize one or more aspects of financial performance where said aspects of financial performance are selected from the group consisting of revenue, expense, capital change, cash flow, current operation value, real option value, derivative value, future market value, market sentiment value, market value and combinations thereof (pages 1-5).

Regarding claims 69, 80 and 91, Bielinski discloses an enterprise management method, program storage device with instructions and apparatus wherein a series of multivariate analyses are selected from the group consisting of identifying one ore more previously unknown item performance indicators, discovering one or more previously unknown value drivers, identifying one or more previously unknown relationships between one ore more value drivers, identifying one or more previously unknown relationships between one or more elements of value, quantifying one or more inter-relationships between value drivers, quantifying one or more impacts between elements of value, developing one or more composite variables, developing one or more vectors, developing one or more causal element impact summaries, identifying a best fit combination of predictive model algorithm and element impact summaries for modeling enterprise market value and each of the components of value, determining a net element of value impact for each segment of value, determining a relative strength of a plurality of elements of value between two or more enterprises, developing one or more real option discount rates, calculating one or more real option values, calculating an

enterprise market sentiment value by element of value, and combinations thereof (pages 1-5).

Regarding claims 71, 82 and 93, Bielinski discloses an enterprise management method, program storage device with instructions and apparatus wherein enterprise related transaction data are obtained from systems selected from the group consisting of advanced financial systems, basic financial systems, alliance management systems, brand management systems, customer relationship management systems, channel management systems, estimating systems, intellectual property management systems, process management systems, supply chain management systems, vendor management systems, operation management systems, sales management systems, human resource systems, accounts receivable systems, accounts payable systems, capital asset systems, inventory systems, invoicing systems, payroll systems, purchasing systems, web site systems, the Internet, external databases and combinations thereof (pages 1-5).

Regarding claims 72, 83 and 94, Bielinski discloses an enterprise management method, program storage device with instructions and apparatus wherein an enterprise further comprises a single product, a group of products, a division or an entire company (pages 1-5).

Regarding claim 73, 84 and 95, Bielinski discloses an enterprise management method, program storage device with instructions and apparatus wherein a computational model of enterprise market value further comprises a combination of models selected from the group consisting of a predictive component of value model, a real option discount rate model, a real option valuation model, a derivative valuation model, an excess financial asset valuation model, a market sentiment model by element of value and combinations thereof (pages 1-5).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 65 and 76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bielinski, and further in view of "The use of options theory to value research in the service sector" by K. Jensen and P. Warren (further referred to as Jensen).

Bielinski does not disclose where a real options segment of value is valued using a discount rate that is a function of the relative strength of one or more enterprise elements of value. However, Jensen discloses where a real options segment of value is valued using a discount rate that is a function of the relative strength of one or more enterprise elements of value (pages 1-8). It would be obvious to one of ordinary skill in the art at the time of the invention to use the strength of an element of value to value a real option as the companies current value elements would be most representative of the value at which potential future projects would be evaluated.

Claims 70, 81, 92, 74, 85 and 96 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bielinski, and further in view of "Machine-learning research: Four current directions" by Thomas G. Deitterich (further referred to as Deitterich).

Regarding claims 70, 81 and 92, Bielinski does not disclose an enterprise management method, program storage device with instructions and apparatus wherein a predictive model algorithm is selected from the group consisting of neural network; classification and regression tree; generalized autoregressive conditional heteroskedasticity; regression; generalized additive; redundant regression network;

rough-set analysis; Bayesian; multivariate adaptive regression spline and support vector method.

However, Deitterich discloses an enterprise management method, program storage device with instructions and apparatus wherein a predictive model algorithm is selected from the group consisting of neural network; classification and regression tree; generalized autoregressive conditional heteroskedasticity; regression; generalized additive; redundant regression network; rough-set analysis; Bayesian; multivariate adaptive regression spline and support vector method (pages 1-39).

It would be obvious to one of ordinary skill in the art to modify the computerized models for determining valuation by using multiple value drivers as disclosed by Kielinski to adapt the use of the model algorithms as disclosed by Deitterich. The motivation would be to use an algorithm from among the many known algorithms for performing computations.

Regarding claims 74, 85 and 96, Bielinski discloses an enterprise management method, program storage device with instructions and apparatus where genetic algorithms are used to identify changes that will optimize one or more aspects of enterprise financial performance and multi-criteria optimization models are used to identity the changes that will optimize two or more aspects of enterprise financial performance (pages 1-5).

Bielinski does not disclose an enterprise management method, program storage device with instructions and apparatus where a Markov Chain Monte Carlo model is

used to identify one or more changes that will optimize one aspect of enterprise

financial performance. However, Dietterich discloses the use of a Markov Chain Monte

Carlo model for optimization (pages 5-6). It would be obvious to one of ordinary skill in

the art to modify the computerized models for determining valuation by using multiple

value drivers as disclosed by Kielinski to adapt the use of the Markov Chain Monte

Carlo model as disclosed by Deitterich. The motivation would be to use a model which

is used with neural networks for performing combinatorial optimization computations.

Response to Arguments

Applicant argues that Bielinksi fails to disclose "segments of value" and that the

Examiner has failed to particularly point out and provide reasoning by which the

Examiner finds support in Bielinksi for "segments of value". Referencing page 2 of the

present application's specification, it is stated that segments of value include current

operation, real options/contingent liabilities, derivatives, excess financial assets and

market sentiment for the organization. Bielinksi discloses segments of value according

to this definition as noted in the previous and current Office Actions. Bielinksi discloses

using sensitivity analysis on value drivers (pages 1-3) to help decision makers chose

and optimize from amongst current and potential future choices (pages 1-5), using

drivers associated with current operations (pages 2-3) and real options (pages 2-3) in

order to make projections regarding future cash flows (page 2-4)

Applicant further argues that the Bielinksi reference "is not even remotely similar to the claimed invention". Examiner respectfully disagrees. As noted above, Bielinksi discloses using sensitivity analysis on value drivers to help decision makers chose and optimize from amongst current and potential future choices, using drivers associated with current operations and real options in order to make projections regarding future cash flows. Examiner finds that the Bielinksi and the current application share goals and objectives of optimizing performance through value drivers and simulation thereof and means of obtaining those results.

Applicant claims that the combination of Bielinksi and Diettrich by reasons of: 1) teaching away from the claimed invention through incompatible methods, 2) change in the historical analysis principal explicitly required by Bielinski, and 3) fails to meet any of the criteria for establishing a prima facie case of obviousness.

Regarding 1) teaching away from the claimed invention through incompatible methods: Examiner respectfully disagrees. Bielinski discloses models using models that utilize projections of future cash flows using SVA, and utilizing historical cash flows using VBM methods. Bielinksi discloses providing insight regarding the probable outcomes of future strategic action, with a model that can account for changes in several value drivers concurrently to provide for sound decision making. Bielinksi also discloses the greater believability in a projection that has the same sensitivity profile as the historical performance, where analyzing data from the past can be used to learn

about what should be done in the future for optimal results given an array of trade-offs to consider.

Dietterich discloses certain techniques that can be implemented for combinatorial optimization, such as machine learning or neural networks with well known procedures such as Markov chain Monte Carlo and Bayesian methods to generate sequences of hypotheses. These techniques provide a way in which a system can learn from data and provide decision makers with invaluable insight regarding patterns which can be used in making future decisions. Dietterich identifies ways, such as through Markov chain Monte Carlo and Bayesian methods, by which data can be analyzed for input into the decision making process.

Regarding 2) change in the historical analysis principal explicitly required by Bielinski: Examiner respectfully disagrees. Bielinski uses data which is historical and current and using that data makes projections for future cash flows. Bielinksi also discloses the use of models using projections of future cash flows with the SVA models. Data is historical by nature. Once it is captured and viewed, it is historical, even if historical by only seconds. Both Bielinski and Dietterich disclose the analysis of data in order to learn and make predictions in order to optimize performance in the future.

Regarding 3) fails to meet any of the criteria for establishing a prima facie case of obviousness: Examiner respectfully disagrees. As noted in the responses above, Examiner finds that there is a reasonable expectation of success in the combination as presented, that the references teach or suggest one or more of the limitations of the independent claims, and that a realistic motivation exists to make the combination.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to Jennifer Liversedge whose telephone number is 571-272-3167. The examiner can normally be reached on Monday – Friday, 8:30 – 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Kramer can be reached at 571-272-6783. The fax number for the organization where the application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

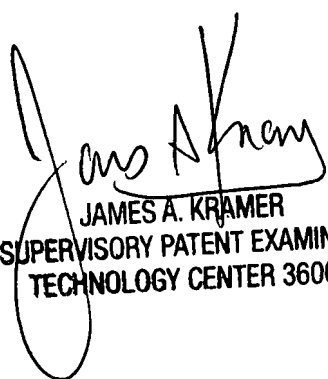For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

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Jennifer Liversedge

Examiner

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